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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,089	07/30/2003	Nobuyuki Ito	1300-000001	8493

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EXAMINER

ROY, SIKHA

ART UNIT PAPER NUMBER

2879

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,089

Applicant(s)

ITO ET AL.

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 9-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0104,0404,0604.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-8, in the reply filed on April 20, 2005 is acknowledged.

Claims 9-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim.

Drawings

Figures 4-17 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The abstract of the disclosure is objected to because it is long. Correction is required. See MPEP § 608.01(b).

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50-150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claim 1 is objected to because of the following informalities:

Claim 1 line 4, 'protrusions which each are provided' is not grammatically correct, it should be replaced with -- protrusions are provided--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,4, 6,7 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,580,212 to Friend.

Regarding claim 1 Friend discloses (Figs. 3c,3d column 7 lines 9-23,61-67, column 8 lines 1-10) an electroluminescent display device comprising a substrate 20, an anode electrode 24 provided on the substrate, protrusions (positive photoresist) 21 which are convexly curved in section relatively to the surface of the substrate are provided on the substrate so as to cover the ends of the electrode 24 and an electroluminescent layer 23(light emissive co-polymer) provided on the electrode 24 in the opening defined by adjacent protrusions 21.

Regarding claim 4 it is clearly evident from Fig. 3c of Friend that the sectional form of the protrusion comprises a part of an arc.

Regarding claim 6 Friend discloses (column 7 lines 19-23) the thickness of the protrusion is between a few and a few tens of microns, the range covering values not less than 5 micrometer as claimed.

Regarding claim 7 Friend discloses (column 7 lines 15,16,63) the protrusion (photoresist) 21 is formed by spin-coating and the organic layer light emissive polymer such as PPV is formed by ink-jet method.

Regarding claim 8 Friend teaches (column 6 lines 17-20) the display device provided in an electronic apparatus (such as computer display or a portable display).

Claims 1 – 5 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2003/0098645 to Lee et al.

Regarding claim 1 Lee discloses (Figs. 2, sections [0046] – [0050]) an organic EL display comprising a substrate 200, an anode electrode 270 provided on the substrate, protrusions (insulating layer) 280 which are convexly curved in section relatively to the surface of the substrate are provided on the substrate so as to cover the ends of the electrode 270, an electroluminescent layer 290 provided on the electrode 270 and in the opening defined by adjacent protrusions.

Regarding claim 2 Lee discloses (Fig.2 column 3 sections [0049], [0050]) the organic EL layer 290 in its part around the boundary between the EL layer and the protrusion is in contact with the protrusion so that the EL layer is curved in a direction opposite to the convexly curved protrusion.

Referring to claim 3 it is evident from Fig. 2 that the EL layer in its part around the boundary between the EL layer and the protrusion is in smooth and continuous contact with the protrusion.

Regarding claim 4 Lee discloses (Fig.2) the sectional form of the protrusion comprises a part of an arc.

Referring to claim 5 Lee discloses in Fig.2 that the sectional form of the protrusion comprises a part of an arc and a flat part as an upper part which is extended continuously from the arc part.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art references are cited to further show the

Art Unit: 2879

state of the art relating to EL devices having convexly curved protrusions forming opening for pixels.

U.S. Patent 6,891,327 to Duineveld et al.

KR 2002090569 A to Baek

U.S. Patent Application Publication 2003/0107314 to Urabe et al.

U.S. Patent Application Publication 2003/0111957 to Kim et al.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S.R.

Sikha Roy
Patent Examiner
Art Unit 2879

Karabi Guharay
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Primary Examiner